information, and to an information recording method wherein light information is recorded on an information recording medium utilizing an photoelectric sensor.--

In The Claims

Please cancel claims 1-3, 10-12 and 16-18 without prejudice or disclaimer. Please amend claims 4, 8, 13, 14 and 15 as follows:

4. (amended) An [image] information recording method wherein light information is recorded on an information recording medium by exposure to light information, characterized by the use of [the] a photoelectric sensor having a photoconductive layer on an electrode [as claimed in Claim 1 or 3] and an information recording medium having an information recording layer formed on an electrode,

the electrode of at least one of said photoelectric sensor and said information recording medium being a transparent electrode, and

said photoelectric sensor being opposed to said information recording medium on the optical axis with a gap located therebetween, or said photoelectric sensor and said information recording medium being stacked on each other optionally with [or without] a dielectric interlayer located therebetween,

wherein when voltage is applied to said photoelectric sensor after said photoelectric sensor has been exposed to light with no voltage applied thereto or voltage of opposite polarity applied thereto, a photo-induced current is generated depending on exposure quantity so that the information can be recorded on said information recording medium,

so that after said photoelectric sensor has been exposed to light information or while said photoelectric sensor is being exposed to light information, the application of voltage between both said electrodes is started.

8. (amended) An [image] information recording method wherein light information is recorded on an information recording medium by exposure to information light, characterized by the use of a photoelectric sensor having a photoconductive layer on an electrode [as claimed in Claim 2 or 3] and an information recording medium including an information recording layer formed on an electrode,

the electrode of at least one of said photoelectric sensor and said information recording medium being a transparent electrode, and

said photoelectric sensor being opposed to said information recording medium on the optical axis with a gap located therebetween, or said photoelectric sensor and said information recording medium being stacked upon each other optionally with [or without] a dielectric interlayer located therebetween,

wherein said photoelectric sensor is exposed to information light with voltage applied thereto, whereby the exposed portion is made higher in conductivity than the unexposed portion, and the exposed portion is kept still higher in conductivity than the unexposed portion even after the exposure of said photoelectric sensor to information light has been finished, and while said photoelectric sensor remains exposed to information light or after the exposure of said photoelectric sensor to information light has been finished, the application of voltage thereto is interrupted or voltage of opposite polarity is applied thereto, whereby the resulting conductivity

is made equal to that obtained by the continued application of voltage,

so that said photoelectric sensor is exposed to light information, and while said photoelectric sensor is being exposed to light information or after said sensor has been exposed to light information, the period of time wherein no voltage is applied to both said electrodes or the period of time wherein voltage of opposite polarity is applied to both said electrodes is provided.

13. (amended) [The] An information recording method [as claimed in Claim 11], wherein light information is recorded on an information recording medium by exposure to light information, wherein the photoelectric sensor of Claim 4 or 19 having a photoconductive layer on an electrode and an information recording medium having an information recording layer formed on an electrode are used,

the electrode of at least one of said photoelectric sensor and said information recording medium being a transparent electrode, and

said photoelectric sensor being opposed to said information recording medium on the optical axis with a gap located therebetween, or said photoelectric sensor and said information recording medium being stacked on each other optionally with a dielectric interlayer located therebetween,

so that said photoelectric sensor is exposed to light information and voltage is applied between both electrodes of said photoelectric sensor and said recording medium to record information thereon, characterized in that the exposure of said sensor image to light and the application of voltage to both said electrodes are properly achieved in response to shutter

speed, so that the reciprocity law can be satisfied over a wide range, [characterized in] such that a reciprocity law failure is compensated for by starting the exposure of the photoelectric sensor [as claimed in Claim 1 or 3] to image light prior to starting the application of voltage to both said electrodes.

14. (Amended) [The] An information recording method as [claimed in Claim 11], wherein light information is recorded on an information recording medium by exposure to light information, wherein the photoelectric sensor of Claim 4 or 19 having a photoconductive layer on an electrode and an information recording medium having an information recording layer formed on an electrode are used,

the electrode of at least one of said photoelectric sensor and said information recording medium being a transparent electrode, and

said photoelectric sensor being opposed to said information recording medium on the optical axis with a gap located therebetween, or said photoelectric sensor and said information recording medium being stacked on each other optionally with a dielectric interlayer located therebetween,

so that said photoelectric sensor is exposed to light information and voltage is applied between both electrodes of said photoelectric sensor and said recording medium to record information thereon, characterized in that the exposure of said sensor to image light and the application of voltage to both said electrodes are properly achieved in response to shutter speed, so that the reciprocity law can be satisfied over a wide range, [characterized in] such that the period of time wherein no voltage is applied to both said electrodes or the period of time

wherein voltage of opposite polarity is applied to both said electrodes is provided while the photoelectric sensor [claimed in Claim 2 or 3] is being exposed to image light or after the exposure of said sensor to image light has been finished, thereby compensating for a reciprocity law failure.

15. (Amended) [The] An information recording method [as claimed in Claim 11], wherein light information is recorded on an information recording medium by exposure to light information, wherein the photoelectric sensor of Claim 4 or 19 having a photoconductive layer on an electrode and an information recording medium having an information recording layer formed on an electrode are used,

the electrode of at least one of said photoelectric sensor and said information recording medium being a transparent electrode, and

said photoelectric sensor being opposed to said information recording medium on the optical axis with a gap located therebetween, or said photoelectric sensor and said information recording medium being stacked on each other optionally with a dielectric interlayer located therebetween,

so that said photoelectric sensor is exposed to light information and voltage is applied between both electrodes of said photoelectric sensor and said recording medium to record information thereon, characterized in that the exposure of said sensor to image light and the application of voltage to both said electrodes are properly achieved in response to shutter speed, so that the reciprocity law can be satisfied over a wide range, [characterized in] such that the application of voltage to both said electrodes is started after an elapse of a certain time upon

the exposure of the photoelectric sensor [as claimed in Claim 1 or 3] to image light finished.

Please add new claims 19-28 as follows:

19. (New) An information recording method wherein light information is recorded on an information recording medium by exposure to light information, characterized by the use of a photoelectric sensor having a photoconductive layer on an electrode and an information recording medium having an information recording layer formed on an electrode,

the electrode of at least one of said photoelectric sensor and said information recording medium being a transparent electrode, and

said photoelectric sensor being opposed to said information recording medium on the optical axis with a gap located therebetween, or said photoelectric sensor and said information recording medium being stacked on each other optionally with a dielectric interlayer located therebetween,

wherein said photoelectric sensor is exposed to information light with voltage applied thereto, whereby the exposed portion is made higher in conductivity than the unexposed portion, and the exposed portion is kept still higher in conductivity than the unexposed portion even after the exposure of said photoelectric sensor to information light has been finished, and while said photoelectric sensor remains exposed to information light or after the exposure of said photoelectric sensor to information light has been finished, the application of voltage thereto is interrupted or voltage of opposite polarity is applied thereto, whereby the resulting conductivity is made equal to that obtained by the continued application of voltage,

so that after said photoelectric sensor has been exposed to light information or

while said photoelectric sensor is being exposed to light information, the application of voltage between both said electrodes is started.

20. (New) The information recording method as claimed in Claim 4 or 19, wherein the photoelectric sensor is characterized in that when an electric field of 10^5 to 10^6 V/m is applied to said photoelectric sensor, a current passing through the unexposed portion has a current density of 10^{-4} to 10^{-7} A/cm^2.

21. (New) The information recording method as claimed in Claim 19, characterized in that said information recording medium is a liquid crystal recording medium including on said electrode a liquid crystal-polymer composite material layer comprising liquid crystals and resin.

22. (New) The information recording method as claimed in Claim 21, characterized in that after an elapse of a certain time upon the exposure of said photoelectric sensor to light information finished, the application of voltage to both said electrodes is started thereby making the latitude of the recorded image wide.

23. (New) The information recording method as claimed in Claim 22, characterized in that the period of time from the finish of the exposure of said photoelectric sensor to light information to the start of the application of voltage to both said electrodes is 0 to 500 milliseconds.

24. (New) The information recording method as claimed in Claim 8, wherein the photoelectric sensor is characterized in that when an electric field of 10^5 to 10^6 V/m is applied to said photoelectric sensor, a current passing through the unexposed portion has a current density of 10^{-4} to 10^{-7} A/cm^2.

25. (New) The information recording method as claimed in Claim 24, characterized in that said information recording medium is a liquid crystal recording medium including on said electrode a liquid crystal-polymer composite material layer comprising liquid crystals and resin.

26. (New) The information recording method as claimed in Claim 13, characterized in that said information recording medium is a liquid crystal recording medium including on said electrode a liquid crystal-polymer composite material layer comprising liquid crystals and resin.

27. (New) The information recording method as claimed in Claim 14, characterized in that said information recording medium is a liquid crystal recording medium including on said electrode a liquid crystal-polymer composite material layer comprising liquid crystals and resin.

28. (New) The information recording method as claimed in Claim 15, characterized in that said information recording medium is a liquid crystal recording medium